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Department of Energy

Richland Operations Office P.O. Box 550 Richland, Washington 99352

AUG 9 1991

91-WOB-282

Mr. Timothy L. Nord Hanford Project Manager State of Washington Department of Ecology Mail Stop PV-11 Olympia, Washington 98504

Dear Mr. Nord:

LIQUID EFFLUENT RETENTION FACILITY

Reference: Letter, T. M. Nord, Ecology, to S. H. Wisness, DOE Field

Office, Richland (RL) "Liquid Effluent Retention Facility", dated

July 17, 1991.

The reference letter noted four (4) issues you felt needed to be brought to our attention concerning the Liquid Effluent Retention Facility (LERF). Though we believe these issues have been previously resolved, we have responded to each issue (attachment) and identified appropriate references.

We welcome the opportunity to meet with you in August to discuss both the management of LERF and also how we may improve the interfaces between our agencies. It is RL's intent to be as responsive as possible to your needs. To that end, the project instituted weekly notifications of construction activities, hand carried information to your Kennewick staff, conducted telephone calls to Department of Ecology staff to provide current schedule information, provided copy coverage of assigned personnel on correspondence, and encouraged your staff to contact the LERF staff immediately with any questions. We believe that timely personal contact can greatly improve interfacing and project accomplishments.





If you have any questions on this please contact Ms. Teresa M. Hennig on (509) 376-6888.

Sincerely,

Hanford Project Manager

WMD:TMH

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Attachment

cc: w/att

P. Stasch, Ecology G. Anderson, Ecology

T. Michelena, Ecology
T. B. Veneziano, WHC
D. E. Kelley, WHC

1. In our efforts to keep Ecology updated on LERF construction activities, we have instituted weekly activity notifications to both your Lacey and Kennewick offices. Included in each notification is a request for Ecology to contact us to facilitate their observation of any activity. As anticipated with any unprecedented task, notification problems and enhancements have been identified and acted upon. Though not repeatedly, the activity notifications were discussed in the last two unit manager meetings as summarized in the following meeting minute excerpts:

The minutes of the June 3, 1991 meeting state:

"An agreement was made that:

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- 1) WHC will continue to supply Ecology with construction activity notifications which identify, to the extent possible, specific construction events;
- 2) If the proposed notification activities are delayed by greater than one work week, an updated notification will be faxed to Ecology on the first Monday after the schedule change is identified;
- 3) Notification of schedule changes of less than one week will be verbally transmitted to Ecology (Moses Jaraysi) by WHC as soon as possible;"

The minutes of the July 9 meeting state:

"The Construction/contracting schedule was discussed. Ecology (Paul Stasch) noted that Ecology had not been informed prior to soil/bentonite being laid over a weekend. Mr. Stasch stated that soil/bentonite is probably the most critical factor in LERF which Ecology wanted to inspect. WHC (Gail Burchell) stated that a schedule was sent the day prior to the UMM (July 8, 1991) which indicates soil/bentonite work is to be done on weekends. Mr. Burchell stated that work will continue seven days a week on the basins until the first basin is ready for polyethylene liner."

Placement of the geotextile carpet and the laying of the soil/bentonite are definitely sequential. The soil/bentonite must be placed on the geotextile material as soon as possible after the geotextile is installed, ideally the same day or within one or two days. This is to minimize exposure of the geotextile material to sunlight and to assure that the geotextile material is not blown around when the wind blows. It was very appropriate that the plans to install the geotextile and soil/bentonite were given on the same notification. The placement of soil/bentonite over the weekend of July 6-7, 1991 followed the process outlined in the June 3, 1991 meeting minutes. On July 2, the day soil-bentonite placement commenced, Mr. Moses Jaraysi was advised that

placement was commencing during a routine project update from Mr. David McShane of Kaiser Engineers Hanford. Mr. McShane had hand carried the results of the basin survey (the final and critical check before placement begins) to Mr. Jaraysi earlier that day. These additional steps by our contractors are directed toward open communications and to provide Ecology with opportunities to initiate any visits to the construction site that may be required.

Beginning in May 1991, the weekly activity notifications advised Ecology that hydrostatic pressure testing of the piping between the 242-A Evaporator and the LERF basins was in process. Ecology was notified in the June 17, 1991 activity notification that installation and hydrostatic testing of the effluent piping at the LERF basins was planned for the week of June 24, 1991. Repairs were found to be necessary the week of June 24. (Moses Jaraysi was notified by telephone.) Activity notifications transmitted on July 8, 1991 and July 15, 1991 informed Ecology that repair and retesting of the piping at the basins was planned. The actual testing was completed on July 13, 1991 for piping between Basins 42 and 43. Testing of piping between Basins 43 and 44 was completed on July 22, 1991. Both within the week of the notification. Therefore Ecology was notified of the hydrotesting of the basin transfer lines. ECOLOGY DID NOT CALL TO REQUEST ADDITIONAL INFORMATION OR TO SCHEDULE A VISIT. It is important to realize construction schedules are subject to change especially on a day to day basis. When it has been necessary to revise the schedule between the weekly activity notification, every effort has been made to inform Ecology (Moses Jaraysi). We believe the information exchanges with Mr. M. Jaraysi have been very beneficial for both parties.

The notification issue on the two rejected test fills does not parallel this situation because work commenced after Ecology had provided oral instructions to proceed. The staff member who gave the authorization has left the employment of Ecology, and Ecology will not accept his direction (See letter dated December 11, 1990, T. L. Nord to S. H. Wisness, "Construction of the 200 E Area Liquid Effluent Retention Facility").

In accordance with the process agreed upon at the June 3 unit managers meeting, as stated above, notification to Moses Jaraysi does "properly notify (y)our Lacey office staff". We continue to provide proper notifications and to incorporate the changes discussed with your staff.

2.a The certification of the basins and dikes is not considered null and void since the standard way to certify the basins and dikes is to certify the design of the basins and dikes. This is exactly what was done and the design has not changed. The constructed dimensions and elevations for portions of the basins did not comply with the design, and that is why the rework was required. The design of the LERF basins has been certified to ensure that the requirements of WAC-173-303-650(4) (c) (i) and (ii) are fulfilled. At the July 9, 1991 Unit Manager's Meeting, Mr. P. Stasch expressed his feelings that although data in the compaction reports may support the existing certification, because he had not received specific reports he would require a recertification regardless of the technical justification. Moses Jaraysi requested the

compaction data on the rework of the basins to help determine if a recertification was necessary. Pending formal transmittal, the data has been provided to Moses and we have not been informed of the technical basis for a recertification.

- 2.b The stockpiling of the soil/bentonite did not "result in the introduction of unacceptable clods into the liner system". This problem was discussed with Ecology and the addition of water to the stockpile along with the breaking and mixing by the sheep's foot roller has made the soil/bentonite acceptable. This method was discussed with Mr. P. Stasch of your staff and he observed the placement of this soil/bentonite on at least two occasions and did not make any mention of this as a problem. He personally observed construction personnel removing unacceptable clods from the basins.
- 3. Highlighting by shade in the signature version of June 3, 1991 Unit Manager's Meeting minutes indicates corrections made to the previous comment copy. There was no change to the conclusion. The pipeline, including the backfilled portion has and will continue to fulfill the regulatory provisions of WAC-173-303-640 (3) (a). This item was an action item from December 12, 1990 Unit Manager's Meeting and has been "CLOSED".
- 4.a The presentation at the May 30, 1991 Technical Meeting fully supports the current design and waste analysis of the present LERF permit application. It was stated and emphasized that the rationale for the sampling discussed was based on a pure statistical analysis with no knowledge of waste characteristics. The statistician reiterated that the projected and actual waste characteristics could justify a significant modification. Our July 9, 1991 offer to discuss this was declined by Mr. P. Stasch. The tie is clearly explained in the LERF Part B on page 3-14, which states:

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"According to the hierarchical analysis of variance method, five random depths at each sample location are necessary to characterize the potential variability of the LERF process condensate. However, existing knowledge of process condensate constituents and their propensity to partition into a density gradient, producing stratification of basin contents, can be used to reduce the number of samples required to characterize the vertical profile of the stored waste....Thus, samples taken from three depths instead of five at each sample port are sufficient to provide in-basin characterization of the waste."

4.b The filling design was an action item from the December 12, 1990 Unit Manager's Meeting. The action has been "CLOSED". On July 23, 1991, instructions were given to the architect-engineer to simplify the design for the control valve at the LERF basins and to provide bottom filling. Regardless of the method of filling, the HDPE liner material will be provided adequate protection from erosional forces.

CORRESPONDENCE DISTRIBUTION COVERSHEET

Author

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Addressee

Correspondence No.

S. H. Wisness, RL

TL Nord, Ecology

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Subject: LIQUID EFFLUENT RETENTION FACILITY

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